Brigham & Women's Hospital
Longwood Medical Research Center

Project Notification Form
23 August 1988

Prepared by:

Tsoi/Kobus & Associates, Inc.
Cambridge, Massachusetts

BRIGHAM AND WOMEN'S HOSPITAL

75 Francis Street
Boston, Massachusetts 02115

Phone:

August 23, 1988

Mr. William Whitney
Associate Director
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201

Re: Brigham & Women's Hospital
Longwood Medical Research Center
TKA #88001-00

Dear Mr. Whitney:

Brigham & Women's Hospital is pleased to submit its Project Notification Form for the Longwood Medical Research Center. We are submitting this to you in response to your request at our meeting of August 4, 1988 concerning review of the project. We understand that you will be seeking to review this Project Notification Form within the next thirty days. We look forward to your review comments on our proposed project.

As agreed in our meeting of August 4, 1988, we will be submitting our Institutional Master Plan for review by the BRA separately. An outline of the Institutional Master Plan and a schedule for its completion are included in Appendix 3 of the Project Notification Form. We expect that we will be submitting the Institutional Master Plan for your review within the next week. One exception to this time frame is the campus-wide Transportation Access Plan. As you know, a Transportation Access Plan for the Longwood Medical Research Center has already been submitted to you on August 4, 1988. We submitted the same report to the City's Transportation Department at the same time. Vanesse, Hangen & Brustlin is currently working with the Transportation Department to finalize the scope for the campus-wide Transportation Access Plan. Work will commence immediately upon resolution of this scope. We will keep you informed as to the anticipated dates for completion of this Plan.

By copy of this letter I am transmitting copies of this Project Notification Form to the Traffic Department and the Boston Landmarks Commission as you requested. If we can be of further assistance, please feel free to call either myself or Ed Shamon.

Very truly yours,

Nicholas J. Johnson

Nicholas J. Johnson
Vice President
Brigham & Women's Hospital

cc: Andrew McClure, Boston City Traffic Dept.
Judy McDonough, Boston Landmarks Commission
L. James Wiczai
Ed Shamon
Richard Kobus

I. SUMMARY

A. *Project Identification*

1. *Project Name*:

   Longwood Medical Research Center (LMRC)

2. *Address/Location*:

   221 Longwood Avenue, site of the former Boston Lying-In Hospital for Women. The site area for the proposed building occupies the eastern portion of the existing complex.

3. *Property Owner*:

   Brigham & Women's Hospital

4. *Owners' Representative*:

   Nicholas J. Johnson
   Vice President Administrative Services

5. *Architect*:

   Tsoi/Kobus & Associates, Inc.

6. *Legal Counsel*:

   Rackemann, Sawyer & Brewster

7. *Estimated Commencement and Completion Dates*:

   Construction of the LMRC will follow demolition of the existing buildings on the proposed site. This demolition is scheduled to begin in the latter part of 1988. It is anticipated that construction will start early in 1989 and will be completed by August of 1990.

8. *Approximate Cost*:

   $25,000,000

9. *Status of Project Design*:

   Schematic Design

10. *Applicability of Article 31, Boston Zoning Code*:

    It is noted that this project does not fall directly under the requirements for development review as stated in Article 31. The

site is not within the physical boundaries of the Downtown/ Northern Avenue corridor described in Section 31-3. However, the proponent acknowledges that the Boston Redevelopment Authority has requested that the proponent file a Project Notification Form following the requirements outlined in Article 31.

B. ***Narrative Project Description***

Brigham & Women's Hospital proposes to construct a new research laboratory wing composed of approximately 122,000 gross square feet (100,000 FAR square feet) on the site of the former Boston Lying-In Hospital for Women.

The Boston Lying-In Hospital complex was taken out of service as a hospital in 1981 when the Boston Lying-In Hospital for Women moved to the new Brigham & Women's Hospital site on Francis Street. The complex remained under-utilized for a short period of time and then became actively occupied by research laboratories from the Brigham & Women's Hospital and Genetics Institute. Genetics Institute was a major tenant in the building until 1985. At that time, Genetics Institute relocated to its new facilities in Cambridge, Massachusetts. Brigham & Women's Hospital upgraded the space vacated by the Genetics Institute to provide modernized research laboratories for its own growing research needs. Between 1986 and 1987, 40,000 square feet of the existing facility were renovated providing modern and fully serviced research laboratories for a variety of principal investigators.

In 1987, with the continued growth of research activity at the institution, Brigham & Women's Hospital sought to provide an additional larger increment of research laboratory space. Various alternatives were reviewed for providing this space. Included among these alternatives were the Academic and Research Facility on the main campus; various off-site locations, including Parcel 18 and sites in Cambridge, Massachusetts; as well as the Boston Lying-In Hospital site. Of these, only the BLI site proved feasible. An examination of that site demonstrated that the most appropriate portion of the site was the Nurse's Home. However, the Nurse's Home was determined to be inadequate for laboratory purposes. The building was originally constructed as a nurses residence hall utilizing wood frame construction with exterior masonry bearing walls. Its structural loading capacity is extremely low. Its floor-to-floor heights are not suitable for research space. It was determined that this wing would be demolished to create a site of approximately 14,000 square feet of land area for the construction of a new research wing. Approximately 54,000 FAR s.f. of building area will be demolished to construct the new research wing.

Siting the additional research space at the BLI complex allows for the necessary synergy between clinical patient care and research activities at the Brigham & Women's Hospital.

The Longwood Medical Research Center will provide space for research laboratories, research animal housing and ancillary facilities associated with the research uses in the BLI complex. The building will assimilate the existing footprint and massing of the Nurse's Home wing. At six stories above the Longwood Avenue grade, its height will be comparable to the massing of the Main building at the BLI complex. It is intended that the new facility will maintain the same relationship with the east property line as the existing Nurse's Home wing. The building will be constructed on spread footings with concrete flat slab construction. The exterior wall will be made up of veneer masonry and punched windows which approximate the scale and detail of the existing Richardson House wing and Main building at the BLI complex. The intent of the project is to provide a complimentary building mass which completes the forecourt of the BLI complex. Included in the project scope is the redesign of the existing courtyard to provide the main arrival space for the renovated and new building areas. The main entrance to the existing building will be redesigned to accommodate handicapped access to the complex.

Service and loading facilities for the new facility, as well as for the existing complex, will be provided thru construction of a new two bay service dock at the rear of the complex. This service dock will provide one 55' loading bay and one 35' loading bay. These service bays will be accessed directly from Avenue Louis Pasteur (northbound).

Parking for the additional increment of research space will be provided off-site at the Massachusetts College of Art parking lot located on Huntington Avenue. Details regarding this parking are provided in the transportation component of the PNF.

C. *List Federal or State agencies from which permits or other actions have been or will be sought:*

Zoning Variances: Parapet Height, Setback
Zoning Special Permit: Animal Holding, Research Laboratories
Earth Removal
Street Opening and Construction Permits
DWP Driveway and Curb Cut Permits
DWPCSewer Extension and Connection Permit
DEQE Public Water Supply Permit
DEQE Cross Connection Permit and Backflow Prevention
DEQE Water Withdrawal Registration or Permit
DWPCSurface Water Discharge Permit
Municipal Gas Inspector Permit for Gas Piping
DPH Certificate of Registration for Equipment Emitting Ionization Radiation
DPH License for Facilities Using Needles or Hypodermic Syringes
Demolition Permit and Asbestos Removal
Building Permit
Electrical Permit
Plumbing Permit

Compliance with Rules Requiring Arch. Access
Compliance with the "OSHA" Act of 1970
Compliance with Fire Extinguiser Regulations
DPS Elevator Certificates
Refrigeration and Air Conditioning Equipment
Identification and Listing of Hazardous Waste
Obtain Hazardous Waste "ID" Number
Compliance with Right to Know Laws

D. ***List any zoning relief required for this project (including any zoning variance, exception, conditional use permit, interim planning permit, zoning map or text change, or development impact agreement)***:

1. A conditional use permit will be required for research laboratory uses.

2. A conditional use permit will be required for housing laboratory animals.

3. A side yard variance will be required along the east property line.

4. A front yard variance will be required if the front yard is defined as the modelity of the street. The new wing is currently designed to match the street relationship of the existing Richardson House wing to the west.

5. A rear yard variance will be required.

   Note: The new building will be constructed on the existing building lines and will maintain substantially the same relationships to property lines as the existing buildings. Nonetheless, these yard and setback variances are required under the current zoning ordinances.

6. A rear yard, parapet setback variance will be required.

7. No variance will be required for height.

8. No FAR variance will be required since the project will not exceed the allowable FAR of 3.0.

9. The project has been reviewed with the Boston Landmarks Commission. Ms. Judy McDonough reported that the Landmarks Commission is unlikely to take any exceptions to the proposed project.

10. The proposed project may require a development impact project approval as specified under Articles 26A and 26B of the Boston Zoning Code.

E. ***List any governmental agencies or programs from which financial assistance for this project is being sought***:

At the present time, it is not anticipated that Brigham & Women's Hospital will seek financing for the project from any state or federal agencies.

II. PROJECT DESCRIPTION

A. ***Attach map showing location of project; survey if available; site plan and architectural rendering if available***:

See Appendix 1 for site context map, existing site conditions map, site plan and property survey.

B. ***Dimensions***:

See Appendix 1.

C. ***Uses - list the current and proposed uses and the square footage for each use***:

Existing Buildings	Gross S.F	FAR S.F.
Nurse's Home Wing - Administrative and Medical Office Space	62,000	53,800
Proposed Bldg. Uses	**Gross S.F.**	**FAR S.F.**
LMRC - Research Laboratories, Research Animal Housing, Ancillary Support Services	122,000	100,100

III. ASSESSMENT OF DEVELOPMENT REVIEW COMPONENTS

A. ***Transportation Component***:

The following information is excerpted from the Project Transportation Access Plan based on a scope of work approved by the Boston Transportation Department in consultation with the Boston Redevelopment Authority.

1. *Traffic Management Element*:

The project is expected to generate approximately 200 net new daily vehicle-trips, of which approximately 49 are expected in the A.M. peak hour, while approximately 39 are expected in the P.M. peak

hour. These additional trips are expected to have no significant effect on existing traffic conditions.

2. *Parking Management Element*:

The 200 net new daily vehicle-trips will create a net new demand for 63 long-term parking spaces and 3 short-term parking spaces, a total of 66 spaces. To accommodate the net new demand, Brigham & Women's Hospital recently acquired control of 70 existing, unutilized spaces at the Massachusetts College of Art parking lot on the corner of Huntington Avenue and Vancouver Street.

3. *Construction Management Element*:

During the 21-month construction period, approximately 15 daily truck trips and approximately 60 daily construction worker vehicle-trips are expected. A construction management agreement, to be negotiated and signed by the Hospital and the Boston Transportation Department, will specify measures to facilitate traffic movement and protect pedestrians during the construction period.

(Source: Vanasse Hangen & Brustlin)

B. ***Environmental Protection Component***:

1. *Wind*:

The proposed project's massing and height is very similar to the existing height and massing of the Nurse's Home wing on the site. As such, it is anticipated that the new project will not adversely effect or change existing wind patterns on the site.

2. *Shadow*:

The proposed building's massing and height, as well as the overall footprint, closely assimilates the existing Nurse's Home wing. It is noted that the proposed new facility will stand at the eastern periphery of the existing site. The courtyard of the BLI complex opens to the south. As such, shadows produced by the new building will fall predominantly on the proponent's own land. It is not anticipated that the new wing will substantially alter the existing shadow patterns on and around the site.

3. *Daylight*:

The project is being designed to have as little additional negative impact as possible on the extent of daylight in the project area. The building orientation is intended to maximize light, air and view from and among the proposed and existing structures.

4. *Solar Glare*:

The proposed materials for the new construction - buff face brick with trim and punched windows utilizing low "E" glass - are of such a nature that they normally will not produce unacceptable levels of solar glare. These materials have been selected to harmonize with the existing BLI complex.

5. *Air Quality*:

Construction activity will generate temporary increases in air contamination, such as CO, NO and Hydro-Carbon Exhaust Emissions. Construction related dust can be minimized by wetting and other standard dust control procedures. Post-construction project related traffic will result in minimal long-term increases in these emissions. However, it is not anticipated that ambient levels will be significantly increased as a result of the new construction.

6. *Water Quality*:

The project site is currently occupied by structures and paved areas. The proposed project is not expected to result in any increases in storm water runoff into the City storm water system. Reports prepared by Haley & Aldrich indicate that no ground water problems will result from construction of the facility. In general, most portions of the proposed new facility will be above the average ground water level in the area. Furthermore, observation wells placed on the site and monitored by Haley & Aldrich show no signs of ground water contamination in the area.

7. *Flood Hazard Zones/Wetlands*:

The project area is not located in a flood hazard zone or wetland.

8. *Ground Water*:

As mentioned above, the preliminary geotechnical studies undertaken by Haley & Aldrich in 1987 indicate that the depth of the ground water table is approximately 16'-19' below the Longwood Avenue grade. There does not appear to be a clear direction of gradient to this ground water table.

It is not anticipated that any substantial portions of the new construction will extend below this water level. Therefore, it is not anticipated that there will be any substantial needs for de-watering of the site during construction or any potential decreases in the water table level in the area.

9. *Geotechnical Impact Including Sub Soil Conditions*:

According to the preliminary study by Haley & Aldrich in 1987, available borings in the area as well as borings undertaken on behalf of this project indicate the following sequence below ground surface: approximately 8' of asphalt, loose fine to medium sand, silt, stones and gravel (fill); approximately 11' of medium dense fine to medium sand with little fine gravel and silt, trace clay layers; at approximately 19' below grade level, very dense coarse to fine sand, little silt and gravel. Since it was not anticipated that the project would have substantial construction below existing grade, borings were not conducted to a level greater than 50' in one location and typically 25' in all other locations. As mentioned above, ground water was found to exist at levels between 16'-19' below street grade.

It is anticipated that the proposed new construction will be founded on cast-in-place concrete spread footings.

Some temporary shoring of the Longwood Avenue street front and the eastern property line adjacent to the Massachusetts College of Pharmacy may be necessary during the construction phase.

It is not anticipated that underpinning will be required for any neighboring structures. Some limited underpinning of the existing buildings at the BLI complex may be required during the construction phases.

10. *Solid and Hazardous Waste*:

Demolition of existing structures and excavation for the proposed new construction will result in the generation of certain amounts of rubble, fill material and unconsolidated soils. The amounts generated by demolition are estimated to be approximately 17,000 cubic yards. These materials will be disposed of in an approved off-site land fill location. The amounts of unconsolidated soils resulting from excavation are estimated at 4,700 cubic yards. The amount of construction related debris generated during the new construction phase is anticipated to be 4,500 cubic yards. These materials will be disposed of in an approved off-site land fill. Specific methods and locations of disposals will be identified as the project proceeds.

Asbestos in the existing buildings to be demolished will be removed following state and EPA approved methods, by licensed contractors. It is estimated that approximately 100 cubic yards of asbestos will be removed from the site. This material will be disposed of in an approved waste facility. Specifics regarding removal and disposal will be detailed in the asbestos removal permit application.

(Source: William A. Berry & Son, Inc., Construction Managers)

Waste generated by the LMRC is estimated to be approximately 2,100 lbs. per day based on current experience in other similar research facilities at Brigham & Women's Hospital. It is noted that this quantity of solid waste is offset by current uses on the site which are being relocated to other facilities. As such, the increment of new waste resulting from the facility is less than the 2,100 lbs. per day stated above. This waste will be removed by a licensed contractor to an approved site.

It is anticipated that research activities will generate approximately 12 tons of biological waste, 36 gallons of liquid chemical waste and 7,800 gallons (480 millecuries) of radiologic waste annually. All such wastes are disposed of following NIH, NRC and EPA guidelines.

(Source: Brigham & Women's Hospital Housekeeping and Radiation Safety Department.)

11. *Noise*:

Noise levels generated during the construction phase of the project will comply with City of Boston's ordinances. Noise and vibration during foundation installation will be minimized because of the use of spread footing foundations.

Long-term noise increases are not anticipated as a result of increased traffic generated by the project.

12. *Construction Impact*:

It is anticipated that short-term construction impacts from the project will be minimal. Use of relatively shallow spread footing foundations and masonry exterior walls will minimize the necessity for large and noisy equipment on the site.

Other proposed safety features and construction methods will be identified as the project proceeds.

13. *Rodent Control*:

A rodent control program will be implemented during the construction phase of the project.

C. ***Urban Design Component***:

The architecture within this area of Longwood Avenue includes the quadrangle of the Harvard Medical School complex, the Vanderbilt Hall and Richardson House wings flanking either side of Avenue Louis Pasteur, the Nurse's Home wing completing the forecourt of the BLI complex and the Massachusetts College of Pharmacy. Of these existing facilities, only the

Massachusetts College of Pharmacy is set back from the existing street line. All other buildings immediately adjacent to the site follow the street line of Longwood Avenue and Avenue Louis Pasteur.

It is our intent for the LMRC to recreate the existing relationships between the Richardson House wing and the Nurse's Home wing at the BLI complex. The proposed new building is intended to closely assimilate the existing footprint, massing, height and scale of the existing BLI complex. Materials used in the construction will be sensitive to the existing structures. Fenestration in the proposed new building will approximate existing proportions and ratios of wall to opening in the new facility.

It is believed that the proposed new addition will serve to strengthen the existing relationships within the forecourt of the BLI complex and on Longwood Avenue. As such, they will continue to contribute to the overall urban design character of this area of Longwood Avenue.

1. *Relationship to Subdistrict Urban Design Features*:

   The Longwood Medical Research Center complex will exist within the Longwood Medical Area. This area has not been specifically identified by the Boston Redevelopment Authority as a subdistrict urban design area. However, it is generally agreed that the area can be thought of as having a singular and specific identity. Urban design studies undertaken in the area are limited. The most recent of which is the area-wide open spaces plan prepared by the Medical Area Services Corporation (MASCO) with the assistance of Camp, Dresser and McKee. The Longwood Medical Research Center complies with the tennets of this study by strengthening the street front at Longwood Avenue and by improving existing open space on the site - the courtyard of the BLI complex.

2. *Quality of the Pedestrian Environment*:

   The proposed new construction at the BLI complex does not significantly alter existing pedestrian flow on or around the site. The massing and scale of the building have been carefully considered to assure maintenance of the existing quality of pedestrian activity at the Longwood Avenue streetfront.

3. *Consistency With Established Design Guidelines*:

   As noted above, the project has been designed with the MASCO area-wide open spaces plan in mind. To the proponent's knowledge, no other specific design guidelines exist for construction of new facilities in this area. The architects for the project have met with the urban design staff of the BRA to discuss and review pre-schematic plans and anticipate continued participation of the BRA.

D. ***Historic Resources Component***:

1. *Impacts on Objects, Structures, Buildings, Sites or Districts of Historic, Architectural, Archaeological or Cultural Distinction*:

The existing BLI complex was listed in the Boston Redevelopment Authority's building survey of 1983. At that time, the project was identified as a Category 3 complex. Tsoi/Kobus & Associates has discussed the proposed new construction with the Boston Landmarks Commission. The Boston Landmarks Commission indicates that they will have no objection to the proposed new construction provided that the new wing is constructed in a manner sensitive to the remaining portions of the BLI complex.

2. *Landmark Status of the Property*:

The existing complex and individual buildings are not currently listed on the Boston Landmark, State Register of Historic Places or on the National Register of Historic Places.

E. ***Infrastructure Systems Component***:

1. *Anticipated Water Consumption*:

11,640 GPD
(Source: R.W. Sullivan, Inc.)

2. *Anticipated Electrical Consumption*:

The project will be serviced by the Medical Area Total Energy Plant (MATEP). It is anticipated that the project will require approximately 4.9 million kWH/yr.
(Source: Lottero & Mason Assoc., Inc.)

3. *Anticipated Sewerage*:

Storm: 1.42 cu. ft./sec.
Sanitary: 11,640 GPD
(Source: R.W. Sullivan, Inc.)

4. *Anticipated Energy Requirements*:

This project will be serviced with steam and chilled water from the Medical Area Total Energy Plant. Approximately 740 M ton hours (kW) of chilled water and 17,800,000 lbs. of steam will be provided annually to the facility.
(Source: TMP Consulting Engineers, Inc.)

Note that water, storm, sanitary, electrical and utility consumption figures are calculated for the new building program. Quantities

shown do not take into account current actual utilization in the buildings to be demolished. As such, the increment of increased utilization will be less than amounts shown above.

IV. COORDINATION WITH OTHER GOVERNMENTAL AGENCIES

A. Boston Civic Design Commission Review:

The Longwood Medical Research Center is not a large scale development project nor is it necessarily a project of special significance. As such, it is not clear that the project comes under the jurisdiction of the Boston Civic Design Commission. The proponent expects to review this further with the Boston Redevelopment Authority.

B. Boston Landmarks Commission Review:

As noted above, the proposed new construction has already been discussed with the Boston Landmarks Commission. At this time, the Boston Landmarks Commission indicates no objection to the proposed construction on the BLI complex site.

C. Massachusetts Environmental Policy Act Requirements:

At this time, it is not believed that the project is subject to an Environmental Notification Form under the MEPA review process. This is being studied further by the proponent and its legal counsel.

D. Architectural Access Board Requirements:

As a commercial project exceeding two stories in height and employing more than 40 people, this project is subject to the jurisdiction of the Architectural Access Board. The project will be designed to comply with these requirements.

E. Mayor's Office for Neighborhood Services:

It is anticipated that the proponent will work closely with the Mayor's Office of Neighborhood Services and with the Boston Redevelopment Authority in providing information about the proposed new construction to concerned local neighborhood groups. Brigham & Women's Hospital has a track record of being forthright and open in its dealing with community groups and members. It is anticipated that this attitude will prevail for this project review process.

F. Boston Employment Plan

It is anticipated that the proponent will work with the Mayor's Office for Affirmative Action and Employment to assure compliance with the Mayor's

Executive Order of July 12, 1985, as amended, during the construction phase.

Proponent's Certification:

This form has been circulated to all agencies and persons as required by Boston Zoning Code, Article 31, Section 31-5 (1).

Nicholas J. Johnson RT

Proponent's Representative:
Nicholas J. Johnson
Vice President Administrative Services
Brigham & Women's Hospital
75 Francis Street, Boston, MA
617-737-5566

23 August, 1988

Richard L. Kobus RT

Person Preparing:
Richard L. Kobus, Director
Tsoi/Kobus & Associates, Inc.
50 Church Street
Cambridge, MA 02138
617-491-3067

23 August 1988

Appendix

Project Drawings

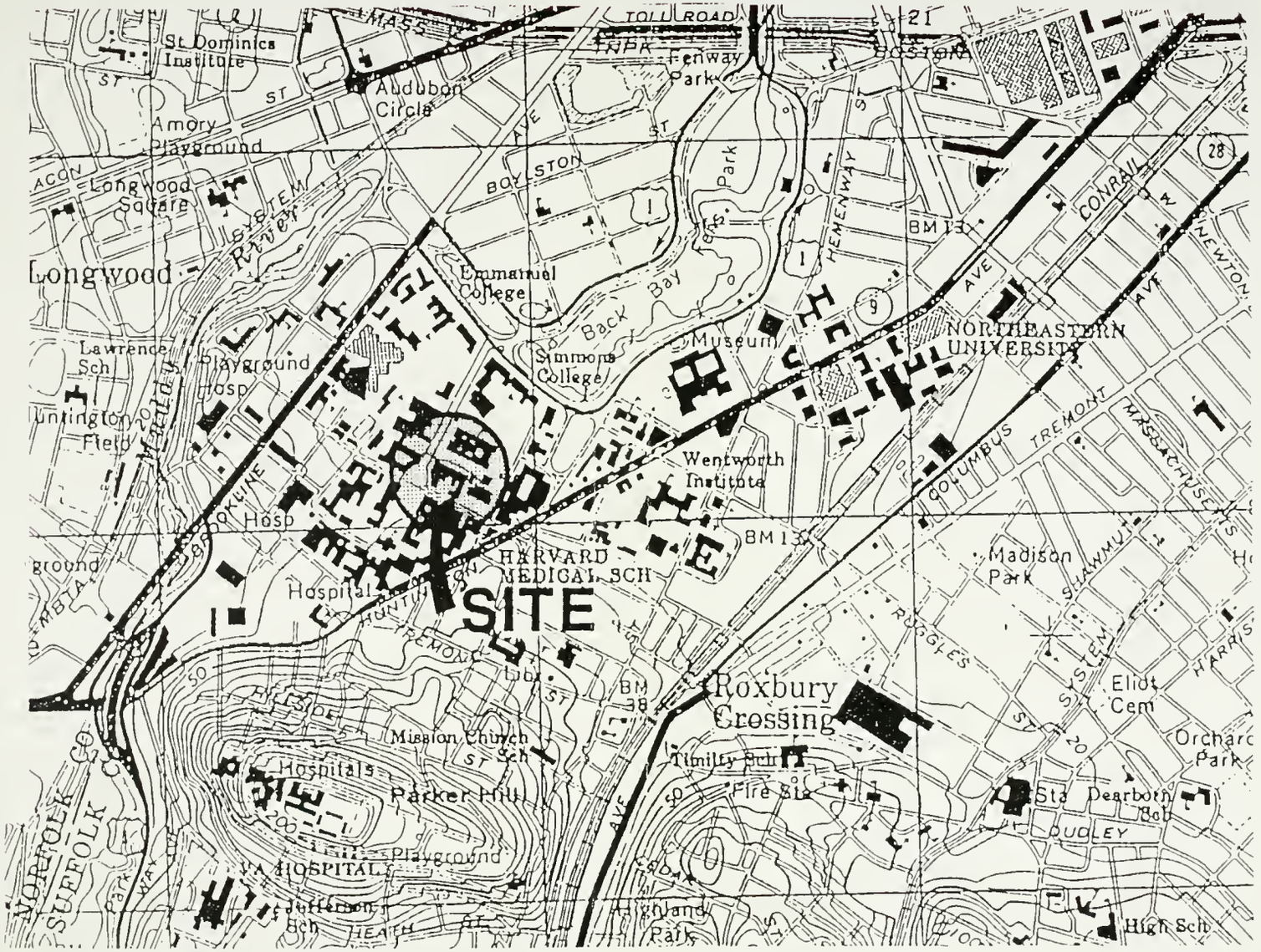
Institutional Master Plan - Scope & Schedule

Campus-Wide Transportation Access Plan - Scope & Schedule

Appendix 1

Project Drawings:

1. Site Context Map (Vicinity Plan)
2. Existing Site Conditions Plan/Property Survey
3. Proposed Site Plan
4. Ground Floor Plan
5. Typical Floor Plan
6. Level 6 Floor Plan
7. Building Section
8. Building Elevations



Project:

L·M·R·C
Brigham & Women's Hospital

Drawing Title:

VICINITY PLAN

TK&A
TSOI/KOBUS & ASSOCIATES
Cambridge, Massachusetts 02138

Drawn By:	Job Number:	Drawing Number:
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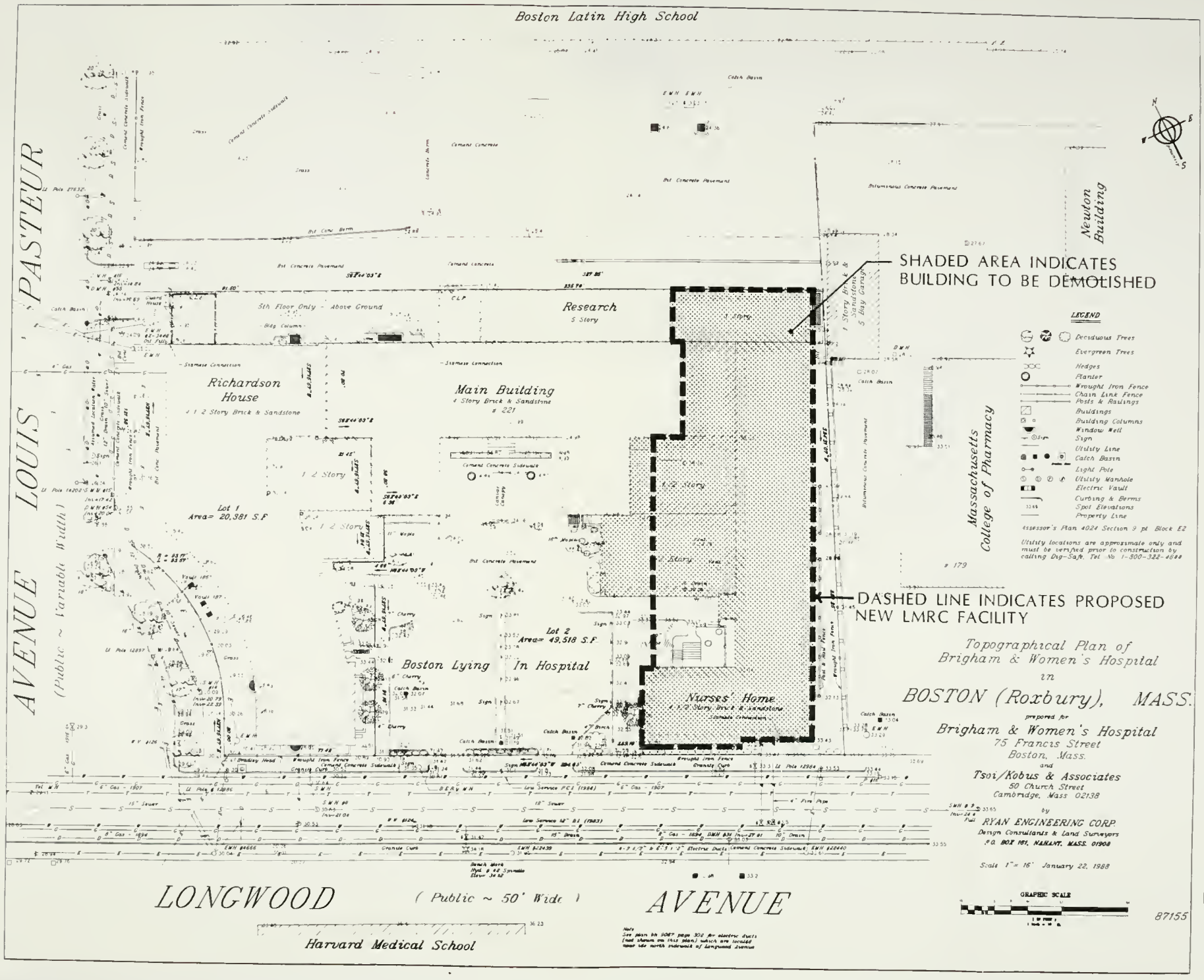
Scale:	Revision:	



TK&A

TSOI/KOBUS&ASSOCIATES
Architects Cambridge, MA

L·M·R·C
Brigham & Women's Hospita

Revisions

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EXIST. SITE PLAN

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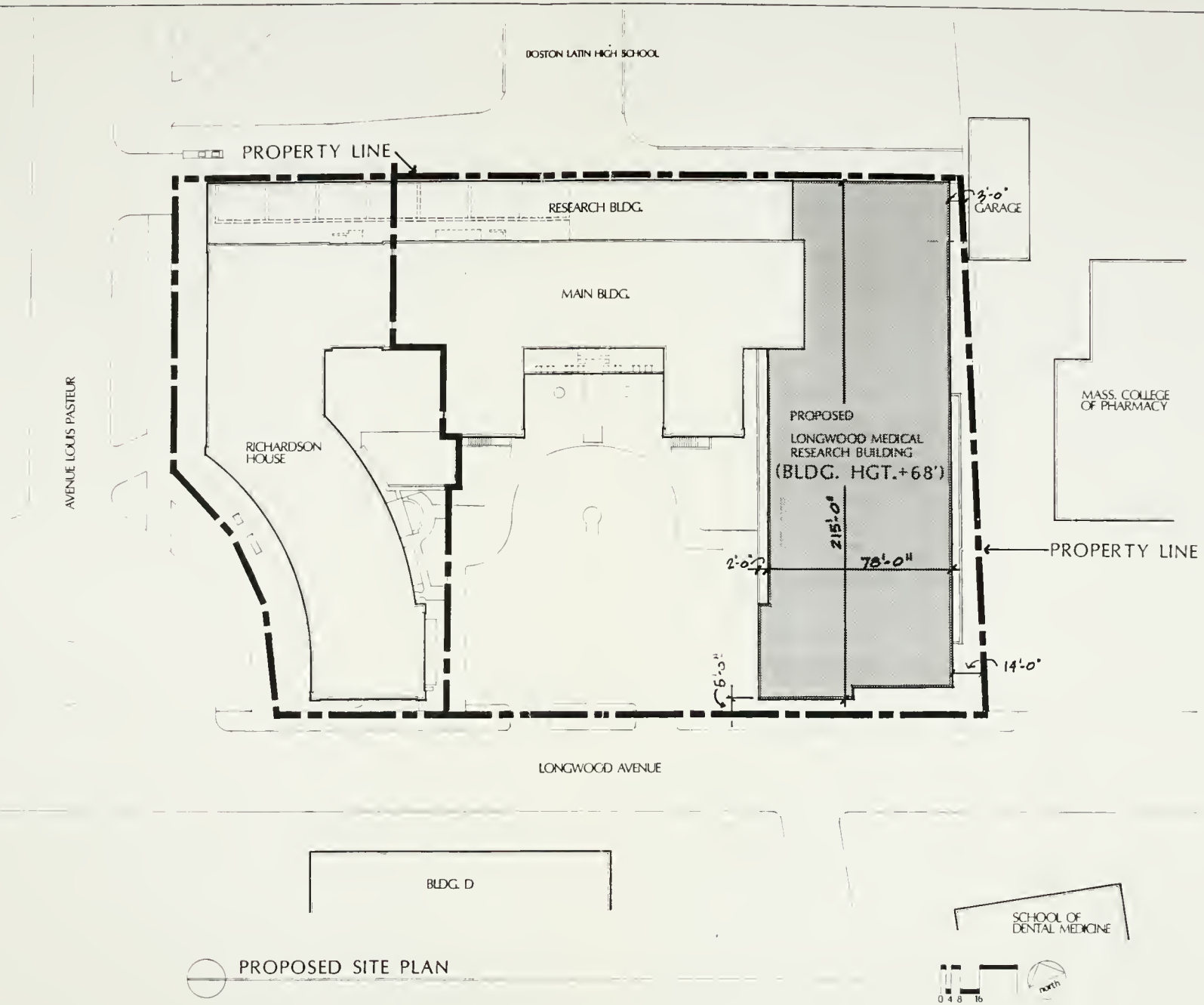

PROPOSED SITE PLAN

TK&A

TSOI/KOBUS&ASSOCIATES
Architects Cambridge MA

L·M·R·C
Brigham & Women's Hospital

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PROPOSED
SITE PLAN

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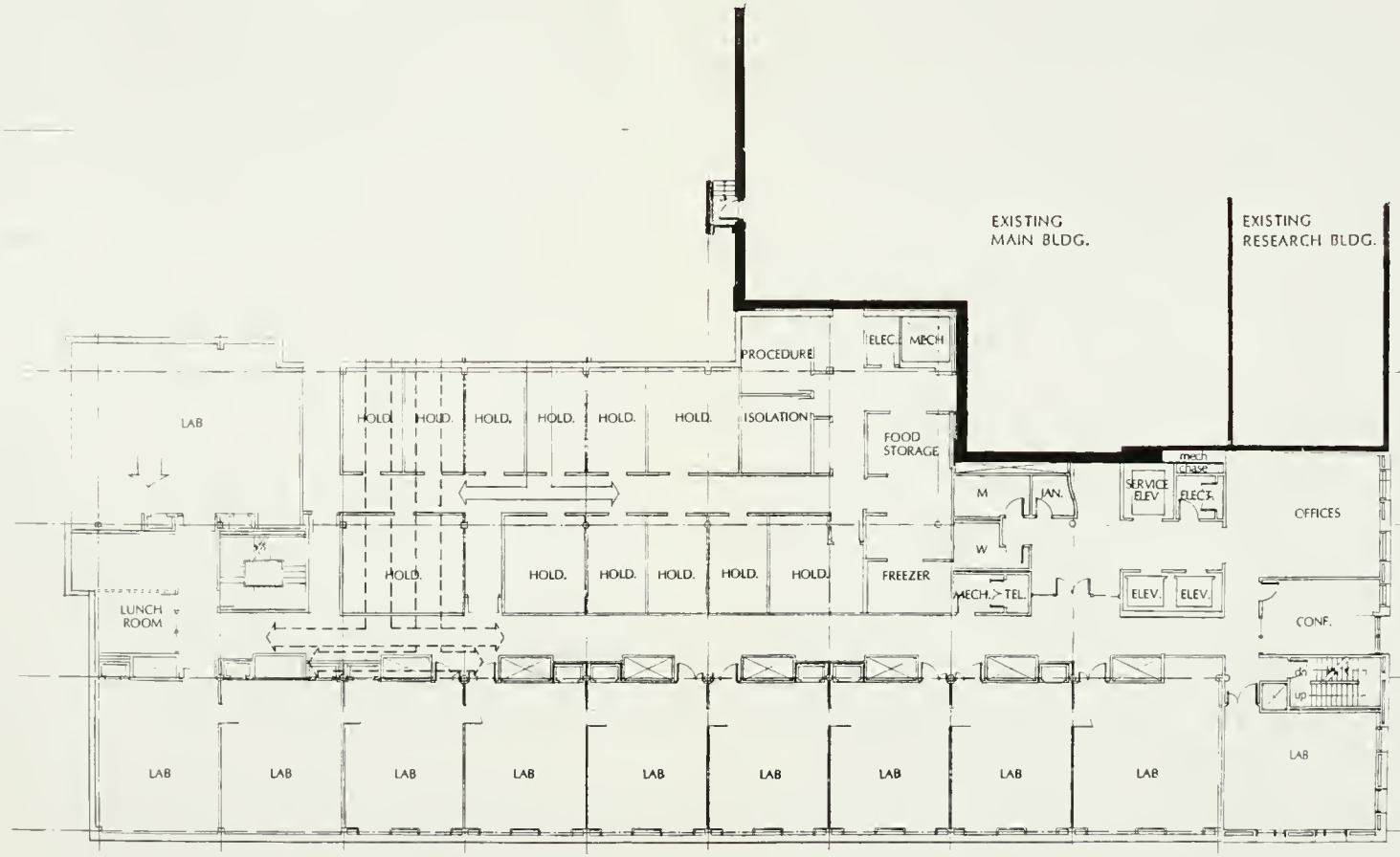

GROUND LEVEL FLOOR PLAN

TK&A

TSOI/KOBUS&ASSOCIATES
Architects Cambridge, MA

L·M·R·C
Brigham & Women's Hospital

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Revisions

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GROUND FLOOR PLAN

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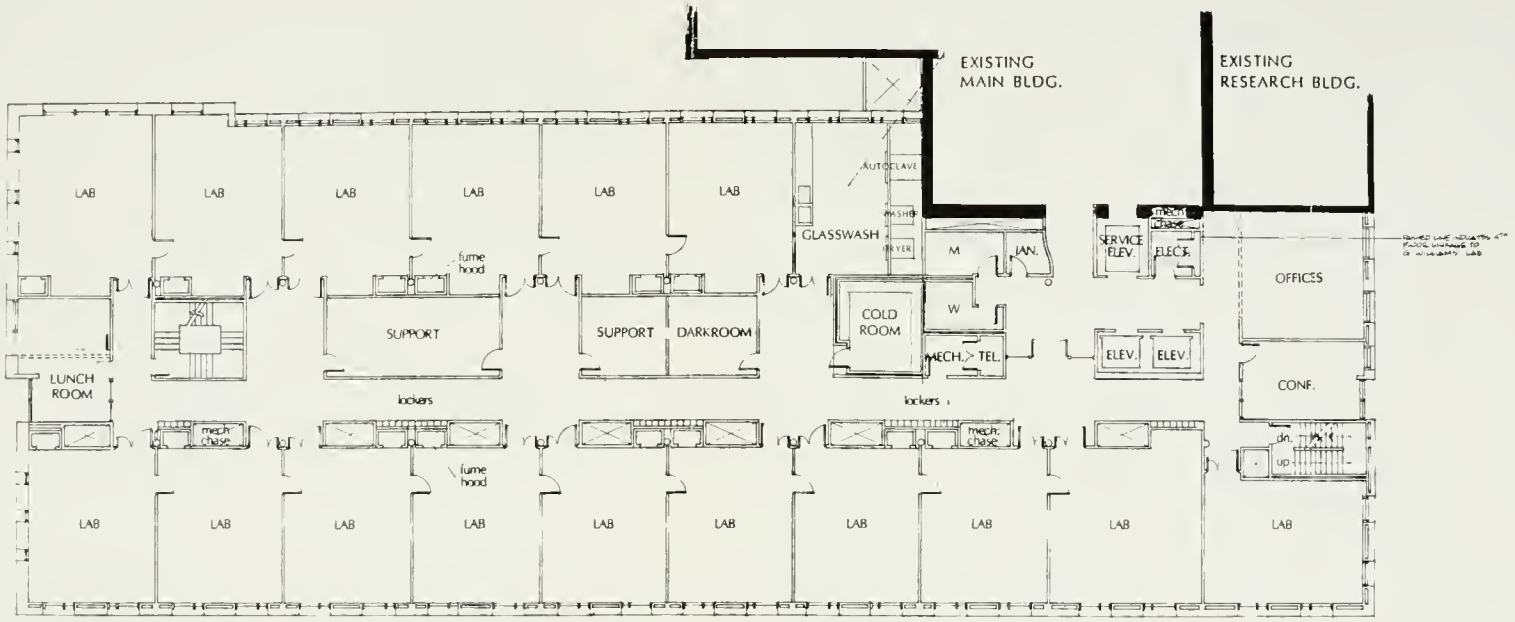

TYPICAL FLOOR PLAN
(LEVELS 1,2,3,4,5)

TK&A

TSOI/KOBUS&ASSOCIATES
Architects Cambridge MA

L·M·R·C
Brigham & Women's Hospital

Drawing Title
TYPICAL FLOOR PLAN

Job Number
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Drawing No.
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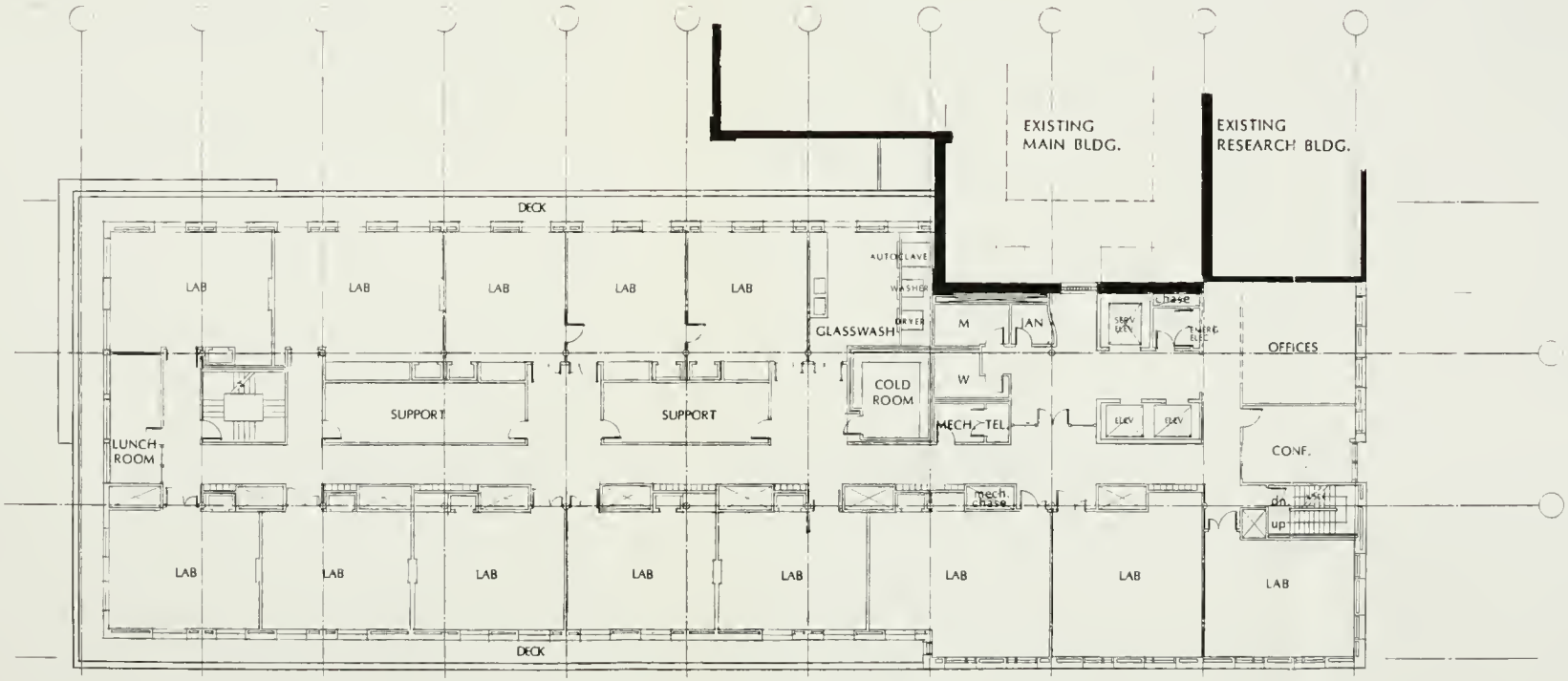

LEVEL 6 FLOOR PLAN

TK&A

TSOI/KOBUS&ASSOCIATES
Architects Cambridge, MA

L·M·R·C
Brigham & Women's Hospital

Drawing Title
LEVEL 6 FLOOR PLAN

Job Number

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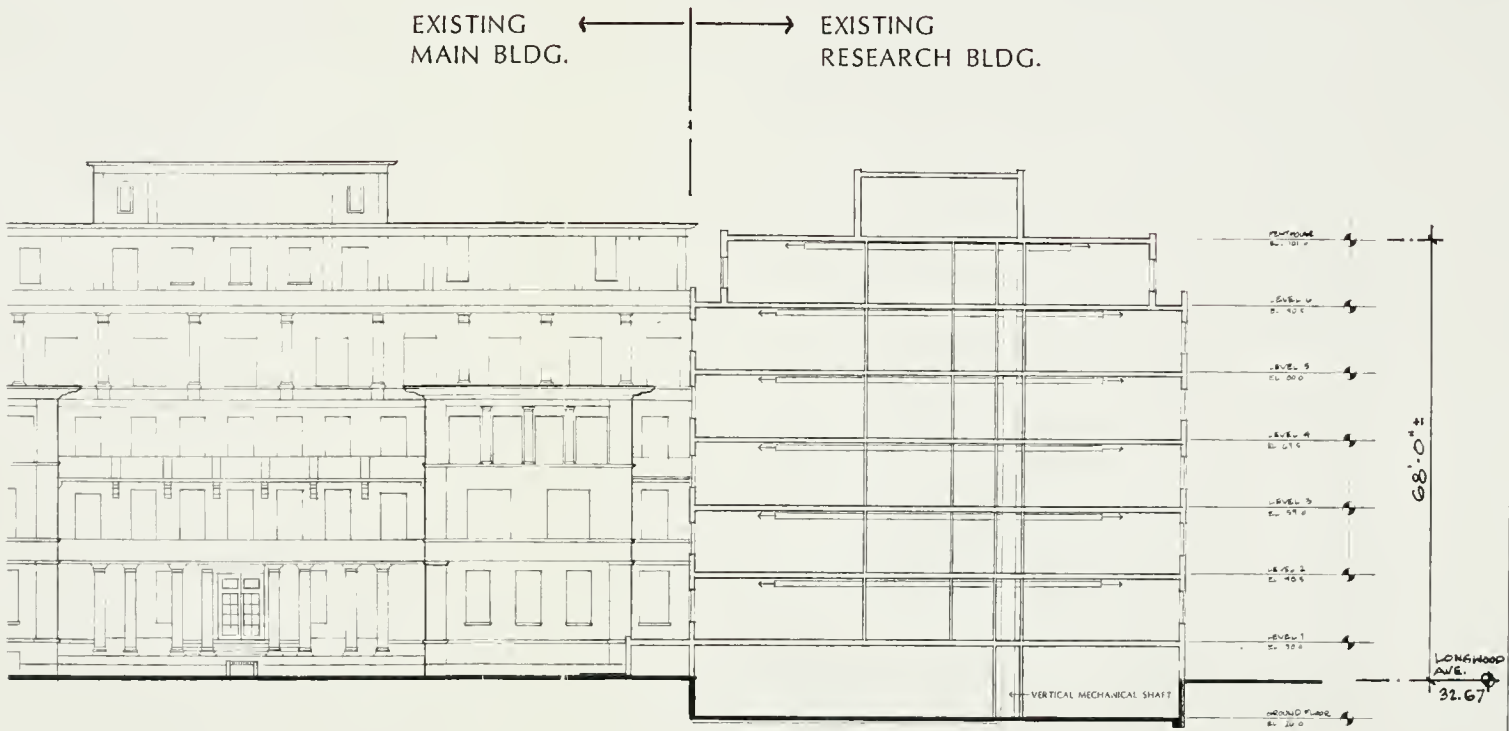

TRANSVERSE SECTION

TK&A

TSOI/KOBUS&ASSOCIATES
Architects Cambridge, MA

L·M·R·C
Brigham & Women's Hospital

No. Description By Date
Revisions

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BLDG. SECTION

Job Number
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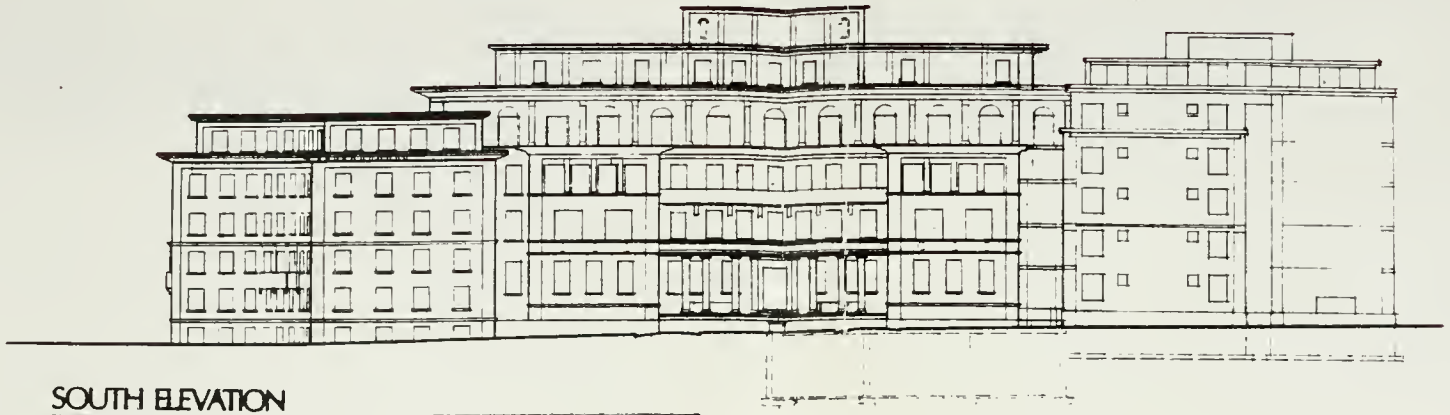
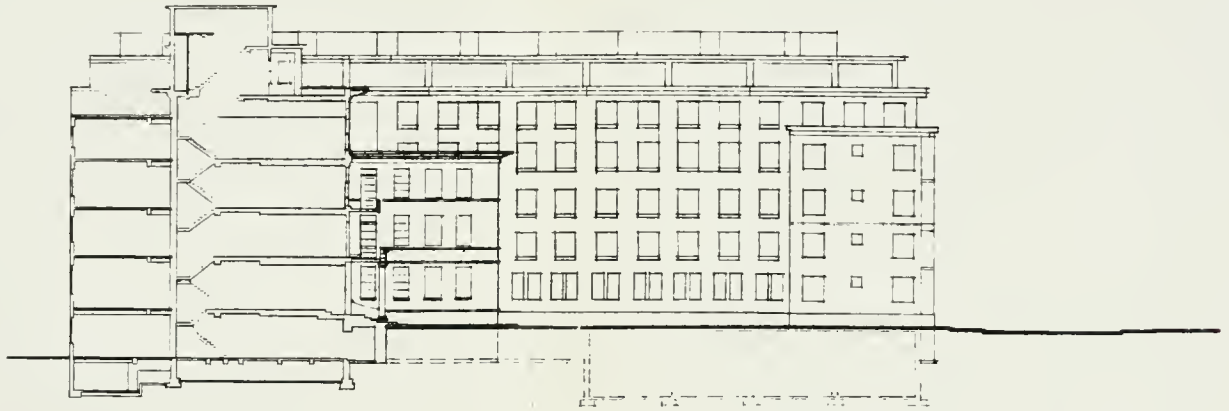
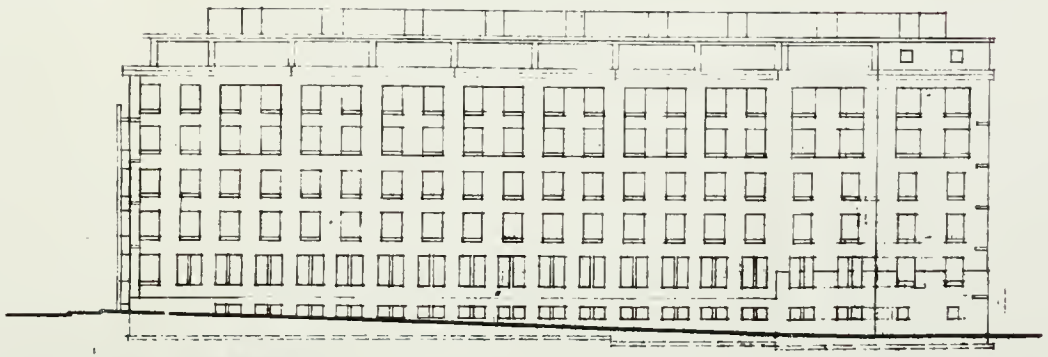


SOUTH ELEVATION



WEST ELEVATION

NORTH ELEVATION



EAST ELEVATION

TK&A

TSOI/KOBUS&ASSOCIATES
Architects Cambridge, MA

L·M·R·C
Brigham & Women's Hospital

No. Description By Date
Revisions

Drawing Title
BLDG. ELEVATIONS

Job Number
Drawn By
Checked
Scale
Date

Drawing No.
8

Appendix 2

Scope: Brigham & Women's Hospital's Institutional Master Plan is being prepared following the requirements of Section 31 as currently drafted and formally transmitted to BWH on August 18, 1988. Much of the required material has already been submitted to the BRA on previous dates. However, per recent discussions, the proponent has agreed to format the Master Plan as described above. An outline of the Master Plan follows:

A. Hospital Mission and Objectives
B. Historic Data/Programmatic Changes
C. Existing Uses/Occupancies
D. Projected Facility Requirements
   Immediate
   Short Range 1990-1995
   Long Range 1995-Beyond
E. Alternative Development Scenarios
F. Neighborhood and Community Benefits
G. Construction Impacts/Mitigation
H. Transportation Impacts/Mitigation
I. Environmental Compliance
J. Citizen Participation Process
K. Other Neighborhood Proposal Projects
L. Master Plan Drawings and Sketches

Schedule: Publication of Final Draft for Review with BRA
week of August 29, 1988.

Available for General Discussion and Comment
mid to late September.

Appendix 3

Campus-Wide Transportation Access Plan:

SCOPE OF SERVICES

Vanasse Hangen Brustlin, Inc. (VHB) will prepare the transportation element of Brigham & Women's Hospital's master plan. The transportation element will be submitted to the Boston Redevelopment Authority (BRA) and the Boston Transportation Department (BTD) for their review. It is anticipated that the master plan study will be conducted in several phases with the first phase including an inventory of existing conditions. The second phase will estimate the transportation impacts of the master plan, while the third phase includes an assessment of potential improvement actions.

Phase 1 - Inventory of Existing Conditions

1.0 Project Initiation

This task will involve reviewing existing available information including any materials already developed for Brigham and Women's Hospital (BWH) through the Longwood Medical Area (LMA) Transportation Study recently completed by VHB, current transportation and parking policies, and other pertinent studies which may be available. It is expected that a considerable amount of information regarding transportation conditions is available from the hospital.

1.1 Hospital Profile

A detailed profile on employment and activity levels at BWH will be developed. The hospital will provide detailed information on current employment, patient and visitation levels, as well as recent historical information as appropriate. BWH will provide an accurate estimate of the actual number and type of employees, physicians, patients and visitors at the hospital per hour during the course of a typical day.

1.2 Current BWH Travel Patterns

Two sets of surveys will be conducted to determine current transportation and parking patterns at BWH. One survey will be aimed at hospital employees and will be accomplished through a handout/mailback survey. The second will focus on patients and visitors and will require personal interviews at the key entrance points to the hospital. The second survey would be conducted during the 8:00 AM to 5:00 PM period on at least two weekdays. Because of the size of the institution and the variety of campus users, the specific logistics of the survey will be determined by VHB in conjunction with hospital administrative staff. Specific information to be gathered includes:

Trip origin
Mode of arrival (% arriving by auto, transit, vanpool, bicycle, walk, etc.)
Arrival/departure time
Vehicle occupancy rate (number of people per vehicle)
Trip frequency
Comments

The survey data will be used to assess the transportation patterns and parking needs of each group at BWH (employees, patients, and visitors). Hospital workers will be subdivided into discrete job categories for this analysis.

1.3 Review of Current Hospital Measures Which Impact Travel Behavior

Information regarding current policies and procedures on transportation will be presented. Of specific interest will be a description of the hospital's parking system, including an explanation of fees, restrictions, time limits, handicapped designations, and parking privileges. Data will be compiled and presented graphically or in tabular form.

1.4 Traffic Evaluation

Information related to traffic flow on the key streets serving BWH will be presented. Specific data to be presented includes traffic volume counts, level of service analysis and an assessment of traffic flow deficiencies. Only a limited amount of new data will be collected as the recently completed LMA Transportation Study addresses many of these issues. Appropriate information from that study will be presented in the master plan document. New data may include counts at the main hospital entrance/exit drives and vehicle occupancy counts at the same locations. Additionally, passenger drop-off/pick-up facilities will be evaluated.

1.5 Parking Evaluation

Data on existing parking supply and utilization will be provided for all parking facilities controlled by the hospital. Field observations to observe vehicle accumulation and turnover will be conducted if adequate data is unavailable. Hourly data on parking accumulation will be presented with the goal being to clearly define BWH's existing parking utilization level. This information, together with the surveys conducted in Task 1.2, will be used to estimate the existing parking surplus (deficit) at BWH. The supply/demand analysis will differentiate between the various user groups.

1.6 Transit Analysis

Information regarding MBTA and MASCO routes serving the hospital will be presented along with survey data on hospital-generated ridership.

1.7 Analysis of Shipping/Receiving Facilities

Information will be presented on the adequacy of existing loading/unloading facilities and procedures. The volume of deliveries on a typical weekday will be estimated.

1.8 Pedestrian Analysis

The existing pedestrian circulation system will be illustrated graphically. The accompanying discussion will evaluate the pedestrian network's ability to meet the needs of hospital workers, patients, visitors, and the general public. Internal pathways, as well as connections to transit and parking facilities and adjacent neighborhoods, will be analyzed to determine the degree to which these pathways are convenient, secure, and easy to follow.

Phase 2 - Impact of Projected Development

2.0 Impact of Projected Development

Projected development at BWH, as outlined in the master plan, will be evaluated for impacts on the traffic, parking, transit, shipping/receiving, and pedestrian systems. Specifically, the number of trips generated by the new development will be estimated, by mode and time period, and by user category. In addition, the effects of any other identified changes in operations at BWH will be evaluated.

Phase 3 - Master Plan Development

3.1 Travel Demand Management Improvements

Traffic reduction techniques, including transit service improvements, will be evaluated and recommended. The goal of this effort will be to minimize the number of vehicle-trips to the BWH campus, and thus mitigate impacts on the traffic and parking systems. Special attention will be paid to the recommendations of the LMA Transportation Study, particularly those that relate to traffic reduction.

3.2 Parking Management Improvement Alternatives

Recognizing the high cost of providing additional parking supply, it is essential that the available supply be used efficiently. Consequently, VHB will evaluate existing parking system management practices and recommend improvements designed to promote more efficient use of the available parking supply.

3.3 Potential Increases in Parking Supply

If, after evaluating the alternatives in 3.1 and 3.2, it is apparent that additional parking will be needed, VHB will work within the parameters of BWH's planning goals to evaluate potential new parking sites. Each site and parking facility option will be evaluated using a screening procedure which considers the portion of the demand that is met, location, vehicle/pedestrian accessibility, traffic impacts, visual impact, and integration with the hospital campus.

3.4 Recommended Improvement Plan

With input to be received from BWH reviewing the alternatives, VHB will prepare a transportation master plan detailing the elements as follows:

Travel demand management plan, which outlines recommended improvements to reduce vehicle-trips to the site.

Parking management plan including the specific recommended policies and actions to improve the management of the existing system and operations of all parking facilities controlled or used by BWH.

Parking supply plan, including any recommended new facilities with respect to location, size, and type of user.

Vehicular circulation plan, which includes any recommended changes to roadways flow patterns, loading or signage.

Pedestrian circulation plan, which includes any recommended changes to pathways or signage.

Shipping/receiving plan, which includes any recommended changes to loading/unloading facilities or procedures.

The plan will be developed to enable the hospital to implement short-term actions and to guide it in meeting long-range transportation needs.

3.5 Draft Parking Master Plan Report

A draft transportation master plan report will be submitted for review and comments. The draft report will present in a concise format the key facts, analysis results and recommendations developed in the study. Once comments are received on the draft report, a final report will be prepared.

3.6 Schedule for Implementation

Approximately 10-12 weeks.